

Customer No. 38107Remarks

Claims 1, 3-7 and 9-10 are currently pending in this application. By this Amendment, claim 11 has been added as a new claim.

In the prior Amendment, Applicants amended the specification to overcome the §112 objections raised in the Office Action. Upon further evaluation, the units provided should have been acceptable. If heat conductance  $\lambda$  for a certain material is given in units of W/K/m, as per the SI units, and a certain geometry is defined with a cross-sectional area (A) in  $m^2$  and length (L) in m, the a heat transfer rate  $\Phi$  for this given material and geometry can be defined as equal to  $\lambda * (L/A)$ , with units in W/K/m \* m/m<sup>2</sup>, which equals W/K. Consequently, a heat transfer rate of  $\Theta$  which equals  $\Phi/P_{max}$  would have units of W/K/W or 1/K. This is what was done in the specification and hence the prior Amendment, although also correct, should not be required. If the Examiner agrees with this, Applicants respectfully request that the amendments to the specification submitted with the last Amendment not be entered.

New claim 11 has been entered into this application by way of this Supplemental Amendment. New claim 11 recites, in pertinent part, "a thermal connection located between the heat absorbing member and a cooling system *such that the thermal connection is not exposed to the backscatter radiation*, the thermal connection comprising a thermal barrier comprised of a different material than that which comprises cooling system such that the thermal barrier limits the rate of heat transfer from the heat absorbing member to the cooling system in a predetermined manner." (emphasis added).

The prior Office Action stated that Rogers (United States Patent Number 6,215,852) includes a thermal barrier (108), which limits the rate of heat transfer by virtue of the materials comprising the barrier and the absorbing material. As can clearly be seen in Figure 4 of Rogers, the thermal storage assembly 88 and the body portion 108 are exposed to the backscatter radiation 98. This produces an inefficiency in the absorption and transfer of heat. Although further embodiments, such as that shown in Figure 6 of Rogers, block the body portion 108 from the backscatter with sleeve member 132, the

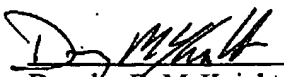
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thermal storage assembly 88 is no longer exposed to the backscatter radiation. This not only produces inefficiency in heat transfer, but also adds to material cost. It should also be noted that Rogers' thermal barrier (body portion 108) is not located between the absorbing member and the cooling system. Consequently, heat from the absorbing member can be transfer directly to the cooling system, thereby causing cooling liquid burn-off. The design of the presently claimed invention prohibits such action.

For the foregoing reasons, Applicant submits that this application is now in condition for allowance. The Examiner is encouraged to contact the undersigned if such contact would facilitate the prosecution of this application. Please charge any deficiency or credit any overpayment to our Deposit Account No. 14-1270.

Respectfully submitted,

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